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EXAMINER

LINDSEY, MATTHEW S

ART UNIT

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2453

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,646	Applicant(s) SOOMRO, AMJAD	
	Examiner MATTHEW S. LINDSEY	Art Unit 2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/10 and 12/16/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 are pending in this application. Claims 18-19 and 21-22 have been amended, as filed on 15 December 2010.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 18-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. With respect to Claims 18-21, while the preamble mentions a processor and network component, the body of the claims do not positively recite hardware. As such the claim can be interpreted as being directed to software. Software does not fall within the four statutory categories of invention, it is not a series or steps of acts and thus is not a process, nor is software a physical article or object and as such is not a machine or manufacture. Software is not a combination of substances and therefore not a composition of matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-8, 10-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste (US 2004/0264397 A1) in view of Rogers (US 7,274,691 B1).

7. With respect to Claim 1, Benveniste disclosed: "A method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said method comprising:

receiving requests for service from respective ones of said client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests for service including a request for scheduled service received from a first one of the client devices ([0026], lines 1-9) and a request for unscheduled service received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

said network component being informed of said request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of said request for

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unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"determining an ability to accommodate said received requests for service ([0050], lines 1-7); and

providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

8. With respect to Claim 8, Benveniste disclosed: "A device to determine when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said device comprising:

a memory (Figure 3, object 303);

a processor in communication with said memory (Figure 3, object 302), said processor operable to execute code to:

receive requests for service from respective ones of said client devices (Figure 7, object 760), the received requests including a request for scheduled service received from a first one of the client devices ([0026], lines 1-9) and a request for unscheduled

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service received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision);

said device being informed of said request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said device being informed of said request for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)";

"determine an ability to accommodate received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or

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request for service has associated packet header values that differentiate the flow from other traffic)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

9. With respect to Claim 18, Benveniste disclosed: “A processor (Figure 3, object 302) within a network component (Figure 3, objects 301, 304) to determine an ability of said network component to honor requests for service received from respective client devices (Abstract, lines 1-3), said processor being configured to cause the network component to:

review an operating state of said network component ([0036], lines 3-7, where buffering frames for a power-saving station in doze state indicates that the access point reviews the operating state of the network component);

review said requests for service ([0050], lines 1-7), the requests for service including requests for scheduled service ([0026], lines 1-9) and requests for unscheduled service ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

said network component being informed of said requests for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said network component being informed of said requests for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"accommodate said received requests for service ([0054], lines 1-3), with modification when necessary ([0063], lines 1-4 and [0065], lines 1-3), when said operating state indicates that said requests for service are able to be accommodated ([0053], lines 1-4); and

provide respective indications of said accommodation to said first and second one of the client devices ([0065], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled

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service by said field of said traffic specification format being set to a second value different from said first value”.

However, Rogers disclosed: “said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

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10. With respect to Claim 22, Benveniste disclosed: “A non-transitory computer readable media whose contents cause a processor to execute instructions to cause a network component to:

receive requests for service from client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests including requests for scheduled service ([0026], lines 1-9) and requests for unscheduled service ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

become informed of a request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)”, and “become informed of a request for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)”, and;

“determine an ability to accommodate said received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)”.

Benveniste did not explicitly state: “become informed of a request for scheduled service by a field of a traffic specification format being set to a first value, become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value”.

However, Rogers disclosed: “become informed of a request for scheduled service by a field of a traffic specification format being set to a first value, become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

11. With respect to Claims 3 and 10, the combination of Benveniste and Rogers disclosed: “wherein said request for scheduled service includes a proposed service schedule (Benveniste, [0049], lines 1-3)”.

12. With respect to Claims 4 and 11, the combination of Benveniste and Rogers disclosed: “further comprising: modifying said proposed service schedule (Benveniste, [0063], lines 1-4)”.

13. With respect to Claims 5 and 12, the combination of Benveniste and Rogers disclosed: “further comprising: providing said modified proposed service schedule to said first one of the client devices (Benveniste, [0065], lines 1-3)”.

14. With respect to Claims 6 and 13, the combination of Benveniste and Rogers disclosed: “wherein said indications are selected from a group consisting of: denied (Benveniste, [0052], lines 1-3), accommodated with change (Benveniste, [0065], lines 1-3), and accommodated (Benveniste, [0054], lines 1-3)”.

15. With respect to Claims 7 and 14, the combination of Benveniste and Rogers disclosed: “wherein said determining the ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method (Benveniste, [0050], lines 1-7), a proposed schedule (Benveniste, [0050], lines 1-7), network operating state (Benveniste, [0050], lines 1-7), network policy (Benveniste, [0050], lines 1-7), and network condition (Benveniste, [0050], lines 1-7)”.

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16. With respect to Claim 15, the combination of Benveniste and Rogers disclosed:
“The device as recited in claim 8, further comprising: an I/O device operable as an interface between said network and said processor (Benveniste, Figure 3, objects 301, 304)”.

17. With respect to Claim 16, the combination of Benveniste and Rogers disclosed:
“The device as recited in claim 8, wherein said code is stored in said memory (Benveniste, [0040], lines 1-6)”.

18. With respect to Claim 17, the combination of Benveniste and Rogers disclosed:
“The device as recited in claim 8, further comprising: a receiving device to receive said requests (Benveniste, Figure 3, object 301); and a transmitting device to provide said respective indications to the first and second ones of said client devices (Benveniste, Figure 3, object 304).

19. With respect to Claim 19, the combination of Benveniste and Rogers disclosed:
“The processor as recited in claim 18, wherein said processor is further configured to cause the network component to: provide respective indications of denying said requests for service to the respective client devices when said operating state indicates that said requests for service are unable to be accommodated (Benveniste, [0052], lines 1-5)”.

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20. With respect to Claim 20, the combination of Benveniste and Rogers disclosed: “The processor as recited in claim 18, wherein said operating state is selected from a group consisting of: processing load (Benveniste, [0052], lines 3-5), demand (Benveniste, [0050], lines 1-7), projected processing load (Benveniste, [0050], lines 1-7), projected demand (Benveniste, [0050], lines 1-7), network component operating state (Benveniste, [0036], lines 3-5, data is not transferred when the device is in power-saving mode), network component policy (Benveniste, [0050], lines 1-7), and network component condition (Benveniste, [0036], lines 3-5, data is not transferred when the device is in power-saving mode)”.

21. Claims 2, 9, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste and Rogers in view of Smith et al. (US 2003/0126244 A1).

22. With respect to Claims 2, 9, 21 and 23, the combination of Benveniste and Rogers did not explicitly state: “in response to being unable to accommodate the request for unscheduled service, providing a proposed schedule to the second one of the client devices”.

However, Smith disclosed: “in response to being unable to accommodate the request for unscheduled service ([0028], lines 1-4 and [0029], lines 1-2, where a request is denied), providing a proposed schedule to the second one of the client devices ([0029], lines 1-2, and [0034], lines 1-6, where a denied request is scheduled for a future time)”.

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers with Smith since Benveniste and Rogers disclosed a method for communicating with wireless devices and Smith disclosed a method for scheduling communication with wireless devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the scheduling system of Benveniste and Rogers with the teachings of Smith to include support for denying an unscheduled request and providing a schedule for the denied request. Motivation to combine these comes from Smith, where: "In particular, there is a need in the art for mechanisms to more efficiently use network resources within a pull technology environment by balancing the network and server workload during periods when the demand on resource bandwidth exceeds the resource's capability to provide that bandwidth in real time" ([0005], lines 3-8). Therefore by combining the references one can schedule requests that would overload a network for a future time, and thereby utilizing network resources more efficiently.

Response to Arguments

23. Applicant's arguments filed 12/15/2010 have been fully considered but they are not persuasive.

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24. Applicant argues that claims 18-21 are statutory under 35 USC 101 (see pg 7, Rejections Not Based on Cited Art).

Examiner respectfully disagrees. The preamble of the claim mentions a processor, thus the claim appears to be directed to a system, however the body of the claims do not positively recite hardware. Examiner recommends positively reciting hardware in the body of the claim.

25. Applicant argues: "The cited portion of Rogers instead refers to identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or request for unscheduled service" (pg 8, lines 16-20).

Examiner respectfully disagrees. Rogers deals with the scheduling of packet flows to provide guaranteed bandwidth (Col. 6, lines 27-52). Real-time packets of Rogers are packets associated with delivery delay limit guarantees (Rogers, Col. 10, lines 30-31). The real-time packets are sent according to a predetermined, allocated schedule (Rogers, Col. 10, lines 42-43). The packet flow associated with a real-time application (or an application with delivery delay limit guarantees) is identified by packet header field values that are common to all packets in the flow (Rogers, Col. 10, lines 35-38). Therefore, in Rogers there are packet header values that are different between a scheduled packet flow and unscheduled packets. Rogers uses the packet header values (a field of traffic specification format) to differentiate between scheduled and

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unscheduled packet flows (indicate whether a request for service is a request for scheduled service or request for unscheduled service).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW S. LINDSEY whose telephone number is (571)270-3811. The examiner can normally be reached on Mon-Thurs 7-5, Fridays 7-12.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krista Zele can be reached on (571) 272-7288. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSL

3/1/2011

/Krista M. Zele/

Supervisory Patent Examiner, Art Unit 2453